

Comparative Analysis Of Core Strength Among Football Hockey And Kabaddi Players

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ABSTRACT

The purpose of the study was to compare the core strength among college level Football, Hockey and Kabaddi players. Forty men Football, Hockey and Kabaddi players each and totally one hundred and twenty players were selected from the affiliated colleges of Bharathidasan University, Tiruchirappalli, Tamilnadu, India for the study. All the players selected were participants in inter-collegiate competition. The age of the subject ranged from 18 to 25 years. The subjects were randomly selected from Christ college, Bangalore, Karnataka, India. Sit-ups were used to collect relevant data of core strength. To find out the significant difference between Football, Hockey and Kabaddi players on the selected variables, Analysis of variance was used. Scheffe's Post – hoc test was used to find out the paired mean difference among the groups. It was concluded that there was a significant difference on core strength among college level Football, Hockey and Kabaddi players Further it was concluded that Hockey players had better core strength followed by Kabaddi and Football players.

KEYWORDS: Analysis, Core Strength, Football, Hockey, Kabaddi Players.

INTRODUCTION

The term core strength refers to the strength of those core muscles. Core stability will provide back support and will enhance the execution of all athletic moves. The abdominal transmit forces from the lower body to the upper body. A strong core is essential for keeping our body and athletic movements synchronized. The effectiveness of every throw, jump, kick, turn, sprint or shot relies on the body working as a single unit. Condition midsection with sport-specific abdominal exercises and literally become a more complete performer. The key is to design routines and abdominal exercises that mirror the movement patterns and energy systems within our own sport. For example; many sports call for explosive athletic movements. Performing abdominal exercises that simulate the speed and power found in competition are the most beneficial to the performance (Kaji et al. 2010).

These above said factors are the predominant factors in many of the games and sports. Keeping the time limit and the availability of the players the investigator selected three games namely Football, Hockey and Kabaddi. Moreover very little research on core strength among different games motivated the investigator to take-up the study.

METHODOLOGY

The purpose of the study was to compare the core strength among college level Football, Hockey and Kabaddi players. Forty men Football, Hockey and Kabaddi players each and totally one hundred and twenty players were selected from the affiliated colleges of Bharathidasan University, Tiruchirappalli, Tamilnadu, India for the study. All the players

selected were participants in inter-collegiate competition. The age of the subject ranged from 18 to 25 years. The subjects were randomly selected from Christ college, Bangalore, Karnataka, India. Sit-ups were used to collect relevant data of core strength. To find out the significant difference between Football, Hockey and Kabaddi players on the selected variables, Analysis of variance was used. Scheffe's Post – hoc test was used to find out the paired mean difference among the groups.

RESULTS

TABLE-I
DESCRIPTIVE STATISTICS OF CORE STRENGTH OF FOOTBALL, HOCKEY AND KABADDI PLAYERS

Variables	Group	Mean	SD ($\pm$)	SED
Core Strength	Football	52.43	7.19	1.31
	Hockey	57.40	5.82	1.06
	Kabaddi	53.40	8.88	1.62

The table I showed that mean, standard deviation and standard error mean of core strength of Football, Hockey and Kabaddi players.

TABLE- II
ANALYSIS OF VARIANCE AMONG FOOTBALL, HOCKEY AND KABADDI PLAYERS ON CORE STRENGTH

Source of Variance	Sum of Squares	df	Means Squares	F	T.V
Between Groups	7069.69	2	3534.84	76.11*	2.68
Within groups	5433.63	117	46.44		

*Significant at 0.05 level

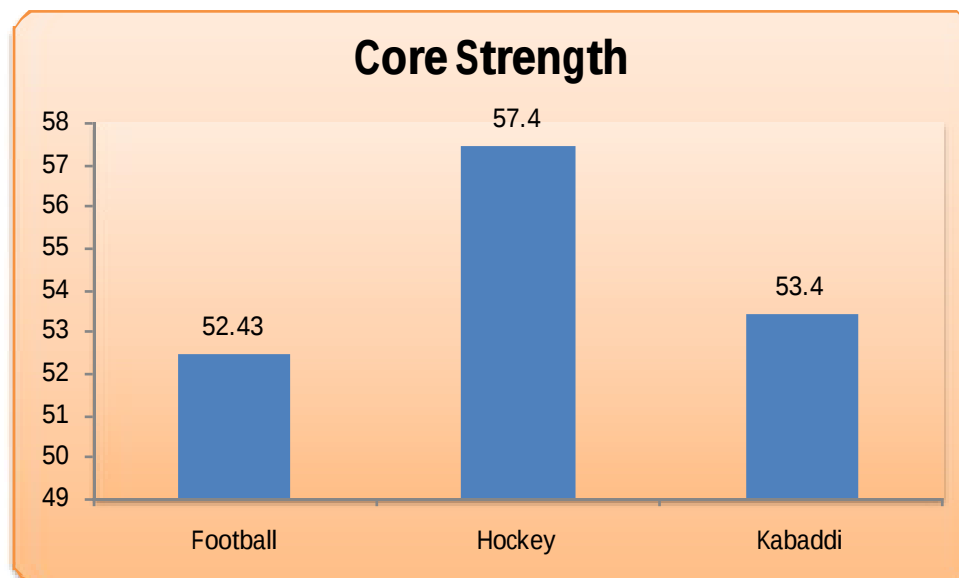
Table-II showed the 'F' value of core strength among college level Football, Hockey and Kabaddi players. The obtained 'F' ratio was 76.11 to be significant at 0.05 level of confidence at 2, 117 degrees of freedom. The obtained 'F' ratio of 76.11 was highly significant ($p < 0.05$). It was concluded that there was a significant difference among the groups on core strength. Since the F value was significant, the Scheffe's Post-hoc test was further computed to find out which group is high among the others.

TABLE-III
SCHEFFEE'S POST HOC TEST ON CORE STRENGTH AMONG FOOTBALL, HOCKEY AND KABADDI PLAYERS

Football Players	Hockey Players	Kabaddi Players	Mean Difference	CI
52.43	57.40	--	4.97*	3.46
52.43	--	53.40	0.97	
--	57.40	53.40	4.00*	

Table III shows the means difference between the means of the Football, Hockey and Kabaddi players. The mean values of Football, Hockey and Kabaddi players were 52.43, 57.40 and 53.40 respectively. The mean differences between Football & Hockey, Football & Kabaddi and Hockey & Kabaddi players were 4.97, 0.97 and 4.00 respectively. Significant differences occurred between Football & Hockey and Hockey & Kabaddi players. The highest value by Hockey players followed by Kabaddi and Football players. Mean differences of the Football, Hockey and Kabaddi players on core strength was given in Figure I.

FIGURE-I
BAR DIAGRAM SHOWING THE MEAN VALUES OF CORE STRENGTH AMONG FOOTBALL, HOCKEY AND KABADDI PLAYERS



CONCLUSION

Based on the result of the study the following conclusions were drawn,

1. It was concluded that there was a significant difference on core strength among college level Football, Hockey and Kabaddi players
2. Further it was concluded that Hockey players had better core strength followed by Kabaddi and Football players.

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